

Notice of Allowability

Application No.

09/978,358

Examiner

Mark Connolly

Applicant(s)

BROCK ET AL.

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 10-16-01.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 20041206.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Dennis M. Butler
Dennis M. Butler
Primary Examiner

DETAILED ACTION

1. Claims 1-20 have been presented for examination.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" in FIGURE 1 has been used to designate both the DUTY CYCLE GENERATOR and the INPUT VALUE from INPUT CLOCK 14. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to because in FIGURE 2, the output of NOR gate 106 should be input into the D input of the first flip-flop 110 and the DUTY-CYCLE-CORRECTED CHILD CLOCK 22 should be input into the clock input of NOR gate 106 as specified on page 8 lines 3-6 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

4. Claims 1-20 are allowed.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:
- a. US Pat No 6515530 to Boerstler et al teaches a glitchless multiplexer circuit which selects between clock and a fixed clock [abstract and col. 2 lines 2-45].
 - b. US Pat No 6566918 to Nguyen teaches a multiplexer circuit which selects between a clock and a duty cycle corrected clock [col. 6 lines 4-16].
 - c. US Pat No 6639441 to Ono et al teaches generating a signal to indicate that the duty cycle of a signal has been corrected [col. 15 lines 27-32].
 - d. US Pat No 6566918 to Nguyen teaches a means to indicate that a signals duty cycle has been corrected [col. 1 lines 60-64].
 - e. Digital Logic Circuit Analysis and Design by Nelson et al teaches multiplexer designs which comprise multiple inputs as well as multiple outputs [pages 275-277].

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6. The prior art of record does not teach or suggest individually or in combination a multiplexer for receiving a sample cycle signal, which as defined in the specification “indicates that the input parent clock 14 and output clock 200 are cycle corrected, and data can be transferred between the two clock domains” [page 7 lines 19-21] and outputting a sample cycle value which is defined in the specification as being “an enable pulse that is the width of the input clock cycle” which either “is asserted high for all cycles” or “is asserted one or two cycles prior to the rising edge alignment of the input and output clocks” [page 6 line 24 – page 7 line 1].

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

8. Pursuant to MPEP 606.1, the title has been changed to read:

**-- A SYSTEM AND METHOD FOR CONTROLLING A MULTIPLEXER FOR
SELECTING BETWEEN AN INPUT CLOCK AND AN INPUT DUTY-CYCLE-
CORRECTED CLOCK AND OUTPUTTING THE SELECTED CLOCK AND AN
ENABLE SIGNAL --**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Connolly
Examiner
Art Unit 2115

Dennis M. Butler
Dennis M. Butler
Primary Examiner

mc
December 7, 2004